The RARS EXCITER

No. 330, October 1997 Repeaters: 146.64-, 224.64-, 444.525+, 444.95+ http://rtpnet.org/~rars

The 1997 STATE FAIR

HAMS ARE NEEDED FOR COMMUNICATIONS

David Fix, N4YTO is looking for volunteers to help the Red Cross with communications at the North Carolina State Fair. The 1997 State Fair is will be held from October 17-26th. Communications volunteers get free admission to the fair, and a "special look" at some of the behind-the-scenes activities.

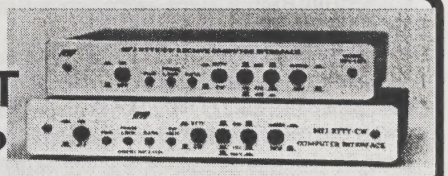
If you can help, contact David at 677-8320.

RARS PICNIC IS OCTOBER 11th. Feasting begins at 1:30PM.

DESSERTS and SIDE DISHES NEEDED.

For information, contact Pat KE4FCJ, 677-8320.

WHY PACKET RADIO?



Could Be That You Are Missing Something Fun.

Packet radio has been around since the mid-1960's, but was first seen on the amateur bands in 1978 through research done by the Montreal Amateur Radio Club. This was followed by the creation of the first TNC (Terminal Node Controller) designed by Doug Lockhart, VE7APU, of the Vancouver Amateur Digital Communication Group (VADCG).

This was then followed by TAPR (Tucson Amateur Packet Radio) with the creation of the TNC-1 in 1982 and then the TNC-2 in '84-'85.

With that, the packet radio revolution ignited as TAPR sold over a thousand TNC-2 kits. The TNC-2 was what was needed to make this mode, something only a few experimenters were playing with, into something that every amateur could enjoy. From its humble beginnings, where it was good luck to have more than three packet operators in the same city, packet radio now has thousands of amateurs using it daily, various manufacturers making and selling TNCs (Terminal Node Controllers), and over a hundred thousand TNCs having been sold to date. What growth! No other mode of amateur radio has seen such explosive growth!

Like the title says, 'Why Packet Radio ?' Like any mode in the amateur service, it provides a group of

continued on page 3

The Raleigh Amateur Radio Society, Inc. (RARS), founded in 1969, has grown to be one of the premier radio clubs in North Carolina. Current membership is approximately 400.

The objectives of the club are to promote world wide friendship through Amateur Radio; to be of public service by providing radio communication in times of disaster, emergency, or civic need; to educate members in radio technique, and to assist in obtaining Amateur Radio licenses.

All persons interested in Amateur Radio, currently licensed or not, are eligible to apply for membership to the club.

Dues to the club are $18.00 per year (which runs from July 1 to June 30). Applications for membership may be obtained from any of the officers named below; from the newsletter editor, named on the facing column; or at any RARS Meeting.

Club meetings are held the first Tuesday of every month, 7:30 PM, at Forest Hills Baptist Church, on the corner of Clark Avenue and Dixie Trail, just off of Hillsborough Street.

In addition to the many social and special events, the club sponsors a 2 m repeater, W4DW, on 146.04/64 MHz. The club also sponsors repeaters on 223.04/224.64 MHz, 449.5/444.5 MHz, 449.95 /445.95 MHz and a packet cluster node on 147.57 MHz. All repeaters cover Raleigh, and most of the surrounding Wake County area. The auto-patch on W4DW is now no longer closed and is open to all duly licensed amateurs.

The RARS Homepage on the Internet World Wide Web is **http://rtpnet.org/~rars**

1996 Officers:

President: Cyndi Wood, KD4ACW
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380-7286 snockw@vms.sas.com

Vice President Pat Fix KE4FCJ
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Treasurer: Mike Murphy, WA4BPJ
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847-4641 wa4bpj@pagesz.net

The EXCITER is published monthly by the Raleigh Amateur Radio Society, and is mailed at no cost to its members.

Letters to the Editor, technical articles, items of interest to the ham community and guest editorials are actively solicited.

Any article published in the EXCITER does not necessarily represent the views of, the Officers, Board of Directors, Editor, or Society Membership, nor does publication thereof represent concurrence by the Officers, Board of Directors, Editor, or Society membership with the contents of the article.

Articles will be printed at the discretion of the Editor, and no article will be published unless it is accompanied by the name(s) of the person(s) submitting the article.

All copy must be in the hands of the editor by the end of the Board of Director's meeting on the third Tuesday of each month. Articles submitted for publication may be hand or type written, an ASCII file on disk transmitted electronically via telephone modem, or on the ham bands using PACKET.

Ham related items for sale by the members will be advertised without charge for one issue, but may be re-submitted as often as desired. These ads must be non-commercial in nature.

Commercial ads will be run in return for the following donations to the club:

	Single Issue	Full Year
Business Card	$7.50	$75.00
Quarter Page	$11.25	$112.50
Third Page	$15.00	$150.00
Half Page	$22.50	$225.00
Full Page	$50.00	N/A

(Commercial ads must be of "camera-ready quality," and obviously can not be sent via ham bands.) Due to the reprographic process used, no color copy can be accepted.

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SPECIAL SERVICE CLUB

Young Ladies' Radio League

AMSAT

SOUTHEASTERN REPEATER ASSOCIATION MEMBER

PRESIDENT'S CORNER

Greetings,

October is going to be a busy month for the club. We've got a lot of Public Service activities going on and the annual picnic. The picnic will be held on Saturday, October 11th at Lake Crabtree Park at the Beach Shelter. We will begin serving at 1:30pm. The park is just off I-40 on Aviation Parkway just south of the airport. We will be providing the basics, hot dogs, hamburgers and drinks but we need you to fill in the salads, side dishes and desserts. Please let Pat KE4FCJ know what you are bringing so she can plan accordingly. Her home phone is 677-8320.

We've got Public Service events planned for every weekend. The biggest one will be helping the Red Cross with radio communications at the State Fair. David N4YTO could still use some help with filling slots. His home phone is 677-8320.

If you are interested in helping with any of the other events besides the fair let him know and he'll give you more information.

A old tradition has been revived again, the monthly ham breakfast. Woody KJ4SO started this last month. The breakfast will be on the first Saturday of each month at Griffins Restaurant in North Raleigh at 10:00am. Give Woody a call if you need more information, 848-1844.

Hope to see everyone on October 7th for the regular monthly meeting!

73,
Cyndi KD4ACW

RARS TRADING POST

For Sale: TH6DXX beam, 2 element 40 meter beam. $235 for both.

Office desks, full "bureaucratic" office size, great for ham operating desk, $35 . Office chairs, great for ham "operating" chairs, various prices.

Curt W4CP, 772-0207

WHY PACKET?

continued from page 1

amateurs with a way of having fun and meeting one of our primary aims Q 'improving the radio art.' Packet radio was a new mode in the early 80's that many of the outstanding amateur experimenters worked on and developed. The result, a decade or so later, is something that provides a lot of different operating opportunities. No longer is it just packet radio, but now it is bulletin board systems, DX Clusters, chat bridges, networking, emergency communications, satellite operations and much more. But what are these ? and is one of these, something that you want to do? How do you know? Let's start off with a basic question.

What is packet radio?

The good thing about packet radio is that you don't really have to know a lot about how it works or find it necessary to memorize a whole new set of technical terms. Find a friend who is using packet, buy your TNC (terminal node controller), hook up your unit, and then ask for help.

The nice thing these days is that almost every town has someone on packet radio who can help. A basic TNC allows your computer to use your radio to talk to another computer, thus combining two popular hobbies Q computers and radios. The cost of the TNC is going to depend on what you want to do. The question that you should ask before 'What TNC do I want?' is 'Why do I want to invest in new equipment?'

Let's spend the rest of the article talking a little about the most popular uses of packet radio.

After you read this, find someone locally on packet and ask for a demonstration. Since amateur packet radio is different in every fifty mile radius, then what I can do here in Austin, Texas is going to be different from what you can do where you are. Find out what you are going to do before spending your money, unless you want to blaze a new trail of services in your area.

Packet Bulletin Board Systems (BBS): Most cities have one or more packet Bulletin Board Systems, or BBS for short. BBSes do two main things: send and receive personal messages for their local users (like yourself) and send and receive messages or bulletins intended for people locally or around the world. Since the BBS is part of a national system of other BBSes, it

has the ability to pass information or messages to any other BBS in the US or the world. This allows you to send messages to friends locally, to someone located in the next state, or to someone on the other side of the world.

The second thing that BBSes do is pass local and national bulletins, which are messages intended to be read by everyone. In this way, amateurs can read the latest messages about the ARRL, AMSAT, TAPR, propagation, DX, and other bulletins on varied topics. Message passing is the primary purpose of a BBS system, but BBSes can also support callbook programs, help references, Internet access, and more. Operators of BBS systems are a good place to start when you first get on the air. Because of the service they provide, they have to know how packet is working in the local area.

Keyboard-to-Keyboard: Like other amateur modes (SSB, FM, etc), packet radio can be used to talk to other amateurs directly. Amateurs can talk to each other simultaneously using their keyboards when they can directly communicate with each other. With the use of networks (see a little later), amateurs can talk at a distance beyond the reach of their own stations by using the network.

Keyboard-to-keyboard communications is one of the least frequent methods of packet communications, because amateurs are rarely on packet at the same time. Many packet operators send electronic mail using either personal mailboxes or a local BBS. In this way, messages are read when the amateur is on the air.

Another limitation to direct keyboard-to-keyboard packet is that you can only talk to one packet station at a time Q no easy way to hold round-table discussions like on a voice repeater.

Some areas support chat or conference bridges, which allow for more than one amateur to talk to each other Q much like a voice repeater. If a chat is supported over a network, then you can talk to someone as far away as the network reaches.

DX Packet Cluster: Many cities have DX (foreign amateur) spotting nodes or networks. HF (High-Frequency) operators connect to their local DX Packet Cluster in order to receive reports on the latest DX. This type of packet came about from those interested in 'chasing' DX.

Many amateurs like to frequent the HF bands looking for rare international operators to contact. A DX Cluster allows many HF operators to be connected over packet radio at the same time while operating HF and hunting for DX. When someone finds a DX station, they send a packet message to the DX Cluster, which then sends the information to all other packet operators using the DX Cluster. In this way, you have several stations monitoring the band, looking for DX. Often an amateur will 'spot' (hear) a DX station and then distribute the DX report almost instantly.

DX Clusters allow everyone to operate many more hard to find DX stations in one evening than was possible operating by oneself. Some amateurs have been known to attain enough contacts to qualify for DXCC in a matter of weeks. One point though, if your HF station is not a 'big-gun',

then it is sometimes best to operate the DX station before posting your spot for others to find. There

is a good chance that a pile-up will occur as soon as you make your spot to the DX Cluster and then you will not be able to work the DX station that you found!

RACES/ARES/NTSand
Emergency Communications:

Packet radio is being used in many emergency services. Whether packet is used to pass a message accurately and in large quantities or to handle messages passed by the National Traffic System, it can provide an important function like any other amateur mode when used correctly.

A new application called APRS combines GPS (Global Positioning Satellites) with packet radio to allow a master station to plot on their computer the location of all other stations in the field.

The purpose is to coordinate the exact position of weather spotters or searchers, without having to waste radio time informing the control station of their locations. Recently, amateurs in Oklahoma have been distributing Doppler Radar images via the packet network. The small weather image file takes but a few minutes to retrieve and display. This helps those amateurs outside of the local ATV coverage to get an accurate weather picture from the Doppler Radar.

NEXT MONTH: PART II

Greg Jones, WD5IVD
via Internet

"EXCITING" HUMOR:
STATISTICS AND STATISTICIANS

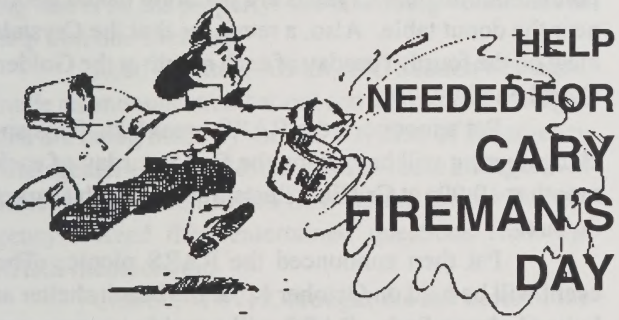
Two statisticians were travelling in an airplane from LA to New York. About an hour into the flight, the pilot announced that they had lost an engine, but don't worry, there are three left.

However, instead of 5 hours it would take 7 hours to get to New York. A little later, he announced that a second engine failed, and they still had two left, but it would take 10 hours to get to New York.

Somewhat later, the pilot again came on the intercom and announced that a third engine had died. Never fear, he announced, because the plane could fly on a single engine. However, it would now take 18 hours to get to new York.

At this point, one statistician turned to the other and said, "Gee, I hope we don't lose that last engine, or we'll be up here forever!"

via Reed AB4W



Ham radio operators are needed to provide communications during the Cary Fireman's Day celebration on October 11, 1997.

Operators are needed on both 2 meters and 440 MHz. Communications will be needed both during the parade and during the display period in the afternoon, so shifts are available from 8AM to 2PM.

To volunteer or for more information, contact Thomas Babb at 557-7008 or via e-mail at tbabb@mindspring.com. Hope to see everyone at the 75th celebration of Cary Firemen's Day.

MINUTES OF THE MEETING
RARS Board Meeting
August 19, 1997

The monthly Board meeting of the Raleigh Amateur Radio Society was held at the Forest Hills Baptist Church on August 19. The meeting was called to order by KD4ACW at 7:38p. Members present were: KD4ACW, KN4AQ, W4CP, KE4FCJ, K4HF, KA3PSK, KO4QH, WD4RDT, KC4UPX, W4VFJ, N4YTO, and AC4ZO.

On motion by K4HF, seconded by KC4UPX, the July minutes were approved.

AC4ZO gave the Treasurer's report in the absence on WA4BPJ. RARS membership is 268.

KE4FCJ gave the VP report. She said that the RARS picnic will be held on October 11 at Lake Crabtree this year. Members are asked to bring side dished or desserts.

The topic for the September meeting will be QSL card Show & Tell. Members are invited to bring their favorites and tell about them.

KC4UPX gave the FM Committee report. He said that we still have not received our ninety day written notice to evacuate the Bayleaf tower.

KO4QH reported on the Education Department. She said the RARS Fall classes have been scheduled and there are already eleven students registered.

KD4ACW announced that the Hamfest Committee has completed their accounting, and that WA4LHE will turn over a check for $8,700 to WA4BPJ.

New Business:

KN4AQ brought up the issue of the RARS BBS (bulletin board service). A member who is a sysop of a BBS system has offered us a BBS on his system, but

because of lack of interest, the Board agreed not to have a land line based BBS.

In a related issue, We have an offer from a computer vendor in the area to sponsor an E-mail listserver in return for advertising space in the Exciter. After considerable discussion, a motion was made by W4CP and seconded by W4VFJ that we accept the offer. The motion passed.

KC4UPX addressed the issue of autopatch use on 146.64. The item was disposed of with no action by the Board.

AC4ZO has received a complaint regarding his administration of the outgoing QSL service that RARS provides its members. There was a long discussion concerning the service, and how it should be administered. Several motions were made, but subsequently withdrawn during discussion. Finally, a motion was made by N4YTO that the Board affirm the action taken by the Secretary that prompted the original complaint. After still more discussion, W4CP successfully moved to call the question, and the N4YTO motion was carried. At this point, KE4FCJ moved that the Board charge the person administering the service to use their discretion in executing the function. The motion passed.

KD4ACW appointed a Nominating Committee consisting of K4HF, KA3PSK, and KM4BU.

KO4QH brought to the Board an item from ARRL Headquarters. They are soliciting funds for a reprint of the ham radio Archie Comics. It was pointed out that this is something we have supported in the past. KA3PSK moved that we approve the expenditure of $200 from the education budget for this purpose. The motion was seconded by W4VFJ, and the discussion began. Finally, K4HF successfully moved to call the question, and the KA3PSK motion was carried.

KN4AQ has been collecting information concerning available call signs for a RARS vanity call. He has agreed to work with W4CP in filing a 610-V form for RARS.

The following comments were made:

KN4AQ — Thanked W4CP for his wonderful job on WPTF radio recently promoting ham radio.

KA3PSK — Is ready to give up his position as sysop of the W4DW Packet Cluster, and asked to Board to consider a new home for it.

KE4FCJ — Needs three additional gas grills for the picnic.

N4YTO — The MS-150 and State Fair are coming up. Volunteers are needed.

KO4QH — Has class flyers.

On motion by KE4FCJ, seconded by KO4QH, the meeting adjourned at 9:45p.

Respectfully submitted,
Jeff Wittich, AC4ZO - Secretary

Regular RARS Meeting
September 2, 1997

The regular meeting of the Raleigh Amateur Radio Society was held on September 2, 1997 at the Forest Hills Baptist Church on Clark Avenue. The meeting was called to order at 7:40p by Pat, KE4FCJ. She welcomed 64 members.

Jeff, AC4ZO gave the Treasurer's report in the absence of Mike, WA4BPJ.

Lynn, KO4QH, announced the RARS fall classes. The Novice/Tech class is scheduled to begin on September 29, and meet on Mondays and Thursdays for six weeks. The location will be the Nortel Technical Training Center, as usual. Flyers were available at the meeting.

Lynn, now speaking on behalf of the Crystals, pointed out that the Crystals are peddling baked goods near the donut table. Also, a reminder that the Crystals meet on the fourth Tuesday of each month at the Golden Corral on Hwy. 70.

Pat announced the RARS breakfast. This social gathering will happen on the first Saturday of each month at 10:00a at Griffin's Restaurant in North Market Square.

Pat then announced the RARS picnic. The event will be held on October 11, at the beach shelter at Lake Crabtree Park. RARS will provide burgers and dogs, and members are asked to bring a covered dish.

Chuck, K4HF said a few words about the Shelby Hamfest. He said attendance looked good, and there was no rain, but the weather was hot.

Chuck also introduced the Nominating Committee and asked any members interested in serving on the Board of Directors to make themselves known.

Alan, AB4OZ, announced the Virginia Beach hamfest, scheduled for September 20 and 21. Also, the Butner hamfest will take place on September 28.

Robert P. Holmes
ATTORNEY AT LAW

Motor Vehicle Negligence
& Workplace Injuries

Smith & Holmes, P.C. 919-832-5000
P.O. Box 1069 FAX 832-5080
Raleigh, N.C. 27602 KE4FUD

W4TIM
Robert P. Buehlmann
Historian and Collector
of
Antique Radios, Artifacts & Documentation
Commercial, Amateur and Military

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Garner, NC 27529 Joe Saah
(919)779-5659 WB5ZPQ

Yet another month has passed and you haven't availed yourself of the many benefits of advertising in the EXCITER. See page 2 for details so you can correct this oversight.

Tim, W4TIM, needs help tearing down a building that is on his property. He is seeking volunteers to help him one evening.

Reed Whitten, AB4W, NC Section Manager, made an announcement about some structural changes that are being made by the NC Division of Emergency Management. Reed described how these changes will affect the communication flow during times of emergency. Reed then entertained questions from the RARS membership.

Charlie, W4VFJ, brought the sad news of the passing of W4SDG, a NET operator in our Section.

At this point, Pat introduced the program for the evening: QSL Card Show & Tell. The program was well received. Thanks to the following presenters: KN4AQ, KD4ACW, KO4TV, AD4YH, KC4SAM, W0UCE, W4FMN, W4CP, KU4HM, and AC4ZO.

Door prizes went to WD4KSE, AD4YH, and W4FMN.

The meeting adjourned at 9:30p.

Jeff Wittich, AC4ZO
Secretary

The RARS *ELMERS*

These folks stand ready and willing to share what they know with you. Check for them in the RARS roster or give me a call and I'll connect you up!

Name	Call	Specialty areas...
Gary Pearce	KN4AQ	FM & repeater operating, HT setup, VHF packet
Curt Phillips	W4CP	Mobile installations, SWLing, scanners, HT setup, Internet
Jim Dubreck	N4BYO	Station construction & operation
Paul Lewis	KE4DNK	Electronic theory & practice
Bob Keys	NA4G	Classic radios & electronics, CW
Chuck Littlewood	K4HF	General expertise
Lyn Williams	W4WDN	CW, climbing towers, alternate power, photography, kids,
Ed Nisley	KE4ZNU	PC & digital electronic stuff, programming, bicycle operation
Jeff Wittich	AC4ZO	HF Operating, antenna installation, first QSOs

And, of course, you know something that could help someone else... they need you! Call now for your spot on the RARS Elmer List!

Ed Nisley KE4ZNU
919 676-4525
enisley@ibm.net

Amateur Radio - providing STATE FAIR communications

Raleigh Amateur Radio Society, Inc.
P.O. Box 17124
Raleigh, NC 27619
Address correction requested.

First Class Mail

6/30/98

RARS PICNIC
OCT 11th.
info page 1

32086-5903 08

Calendar of Events:
October 1997

Oct 4:	**RARS Breakfast meeting, Griffin's Restaurant, 10AM, info, Woody KJ4SO, 848-1844**
Oct 7:	**Regular RARS meeting; Forest Hills Baptist Church, directions on page 2. Program: QSL Cards, see page 1.**
Oct 9:	Information Highway User Group, info- Russ Lyday KD4LLS, 782-8703
Oct 11:	**RARS Picnic, Lake Crabtree Park, DESERTS and side dishes NEEDED! info- Pat KE4FCJ, 677-8320, see page 1**
Oct 20:	**Scanner/Shortwave Listening SIG, info- Curt W4CP, 772-0207** ***We're ON THE MOVE: call for meeting location info!***
Oct 21:	**RARS Advisory Board; Forest Hills Baptist Church, 7:30PM ALL RARS MEMBERS WELCOME!**
Oct 28:	**Crystals Meeting, Golden Corral, Hwy 70W, info- Lynn KO4QH, 787-1111**
Nov 1:	**RARS Breakfast meeting, Griffin's Restaurant, 10AM**
Nov 23:	**JARSfest, Hamfest and Computer Show, Benson, NC, info, Alan AB4OZ, 787-1111**

send additions, changes and corrections to the Editor as listed on page 2